

Claims

What is claimed is:

1. A frame assembly for a loader machine having an undercarriage including at least one crossmember, said frame assembly comprising:
 - a main frame assembly having a base portion and front and rear sections; and
 - at least one recessed channel defined on said base portion of said main frame assembly, said at least one recessed channel extending across at least a portion of the width of said base portion for seating upon said at least one crossmember.
2. The frame assembly of claim 1, wherein said at least one crossmember is attached with the main frame assembly in an area adjacent the at least one recessed channel.
3. The frame assembly of claim 1, wherein said at least one recessed channel is positioned between the front and rear sections of said main frame assembly and extends across the entire width of said base portion.
4. The frame assembly of claim 1, wherein the main frame assembly includes:
 - an upper frame assembly having a pair of space tower assemblies, a pair of side members having front and rear portions with each said side member being connected to a respective one of the pair of tower assemblies and extending longitudinally therefrom, and a crossmember assembly extending between the pair of tower assemblies for connection therewith; and

a lower frame assembly having a pair of spaced vertically oriented side rails and a front wall extending continuously between the side rails for connection therewith, the upper frame assembly is mounted to the lower frame assembly exclusively at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly.

5. The frame assembly of claim 1, wherein said undercarriage is a tracked undercarriage including a right and left track assembly, said right and left track assemblies being connected by said at least one crossmember.

6. The frame assembly of claim 1, wherein said at least one recessed channel defines a strengthened region of said main frame assembly and is operable to provide torsional stiffness to said loader machine.

7. The frame assembly of claim 4, wherein the lower frame assembly is formed of medium strength steel.

8. The frame assembly of claim 4, wherein the lower frame assembly further includes said base portion and said at least one recessed channel.

9. The frame assembly of claim 4, wherein the crossmember assembly is disposed between the front and rear end portions of the upper frame assembly.

10. The frame assembly of claim 4, wherein the side members of the upper frame assembly extend along the side rails of the lower frame assembly a predetermined distance and terminate rearward of the front wall.

11. A loader machine having a main frame assembly and an undercarriage wherein said main frame assembly includes a lower frame assembly having front and rear sections and an upper frame assembly, said undercarriage including right and left track assemblies connected by at least one crossmember, said loader machine comprising:

at least one recessed channel defined on said lower frame assembly, said recessed channel extending across at least a portion of the width of said lower frame assembly for seating upon the at least one crossmember.

12. The loader machine of claim 11, wherein said at least one crossmember is attached with the lower frame assembly in an area adjacent the at least one recessed channel.

13. The loader machine of claim 11, wherein said at least one recessed channel is positioned between the front and rear sections of said main frame assembly.

14. The loader machine of claim 11, wherein the upper frame assembly includes a pair of space tower assemblies, a pair of side members having front and rear portions with each said side member being connected to a respective one of the pair of tower assemblies and extending longitudinally therefrom, and a crossmember assembly extending between the pair of tower assemblies for connection therewith and the lower frame assembly includes a pair of spaced vertically oriented side rails and a front wall extending continuously between the side rails for connection therewith, the upper frame assembly being mounted to the lower frame assembly exclusively at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly.

15. The loader machine of claim 11, wherein the lower frame assembly is formed of medium strength steel.

16. A frame assembly for a loader machine having an undercarriage including at least one crossmember, said frame assembly comprising:

a main frame assembly having a base portion and front and rear sections; and

at least one recessed opening defined on said base portion of said main frame assembly, said at least one opening extending across at least a portion of the width of said base portion and being operably engagable with said at least one crossmember in a manner that distributes a vertical load of said loader machine substantially evenly along said at least one crossmember.

17. The frame assembly of claim 16, wherein said at least one opening is a recessed channel extending across the entire width of said base portion.

18. The frame assembly of claim 16, wherein the loader machine has a center of gravity that is measured in relation to the depth of the at least one opening and the amount of the at least one crossmember disposed within the at least one opening.

19. The frame assembly of claim 16, wherein said at least one crossmember is attached with the main frame assembly in an area adjacent the at least one recessed opening.

20. The frame assembly of claim 16, wherein said at least one recessed opening is positioned between the front and rear sections of said main frame assembly.

21. The frame assembly of claim 16, wherein said at least one recessed opening is shaped for seating against said at least one crossmember and is seated thereupon.

22. The frame assembly of claim 21, wherein said at least one recessed opening and said at least one crossmember have a channel shape, the channel shape of said at least one recessed opening being formed for mating relation with the channel shape of said at least one crossmember.